

FIG. 1

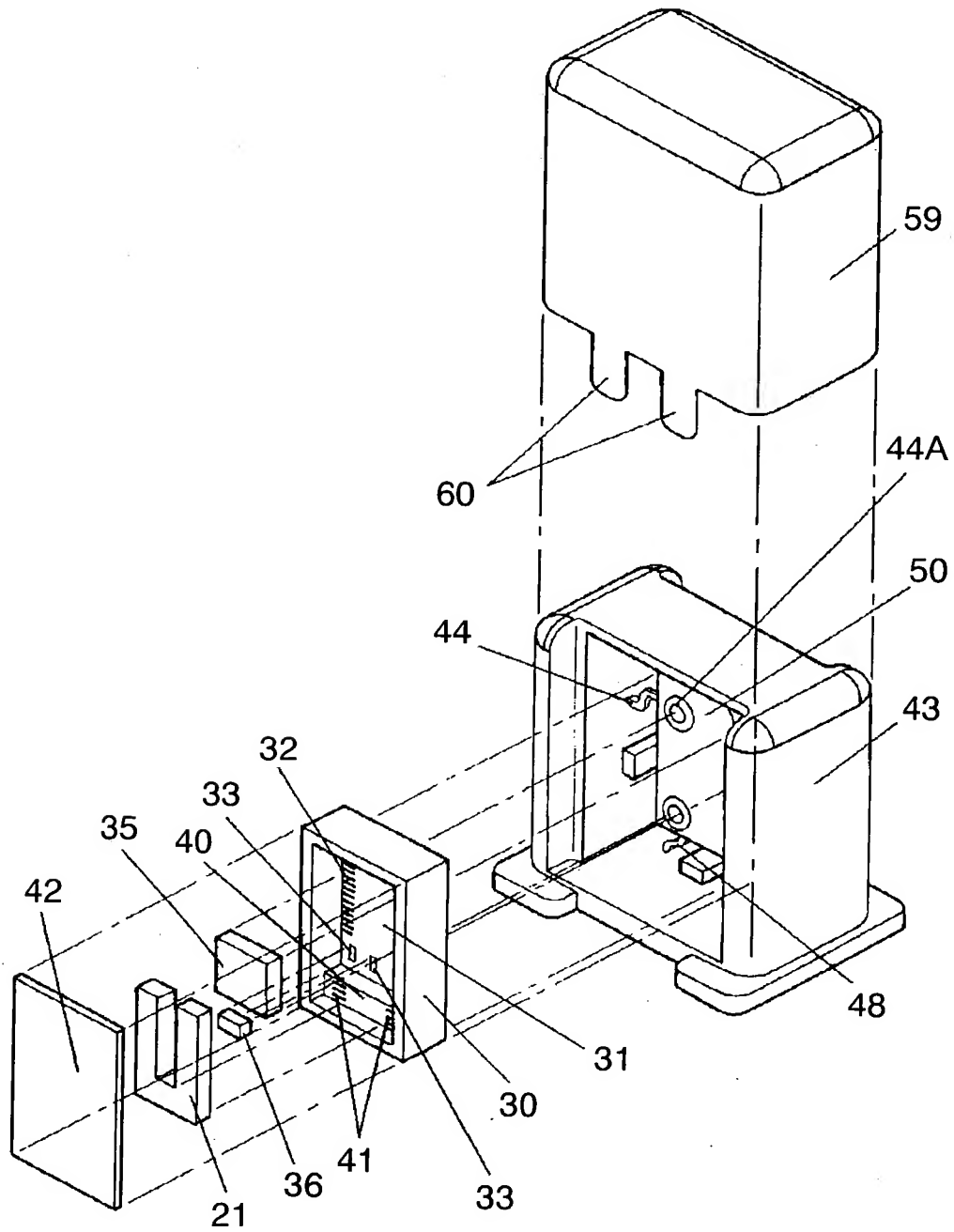


FIG. 2

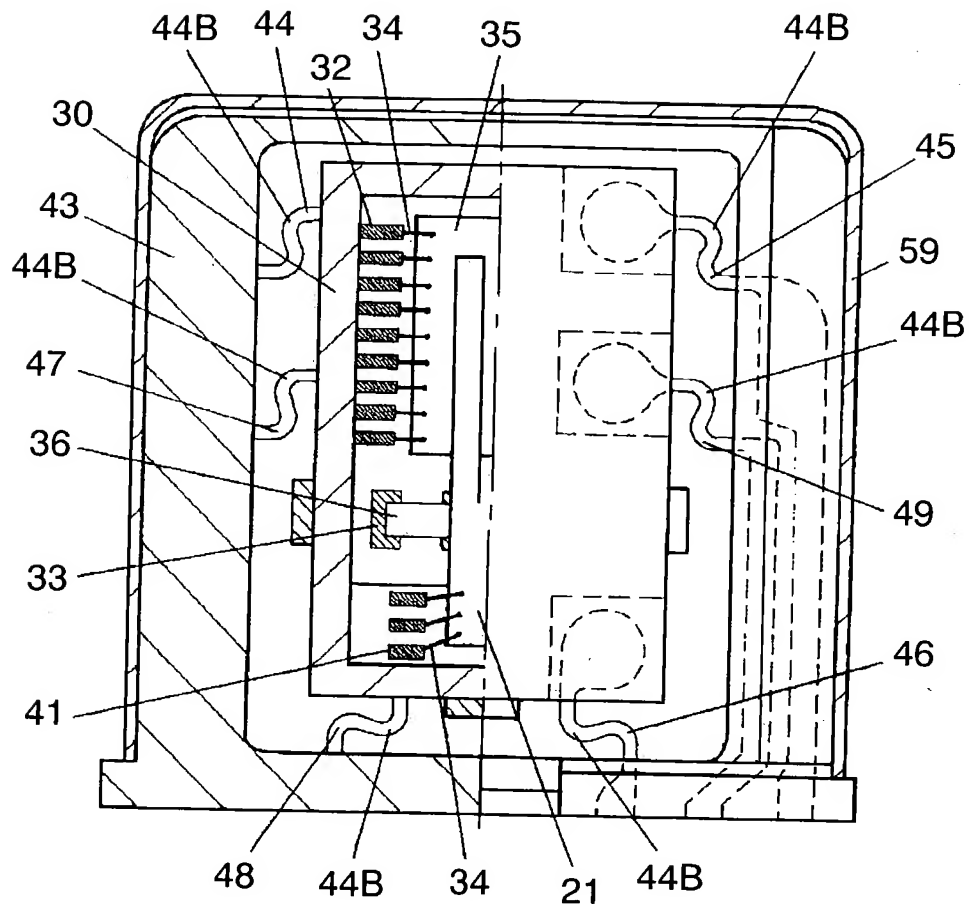


FIG. 3

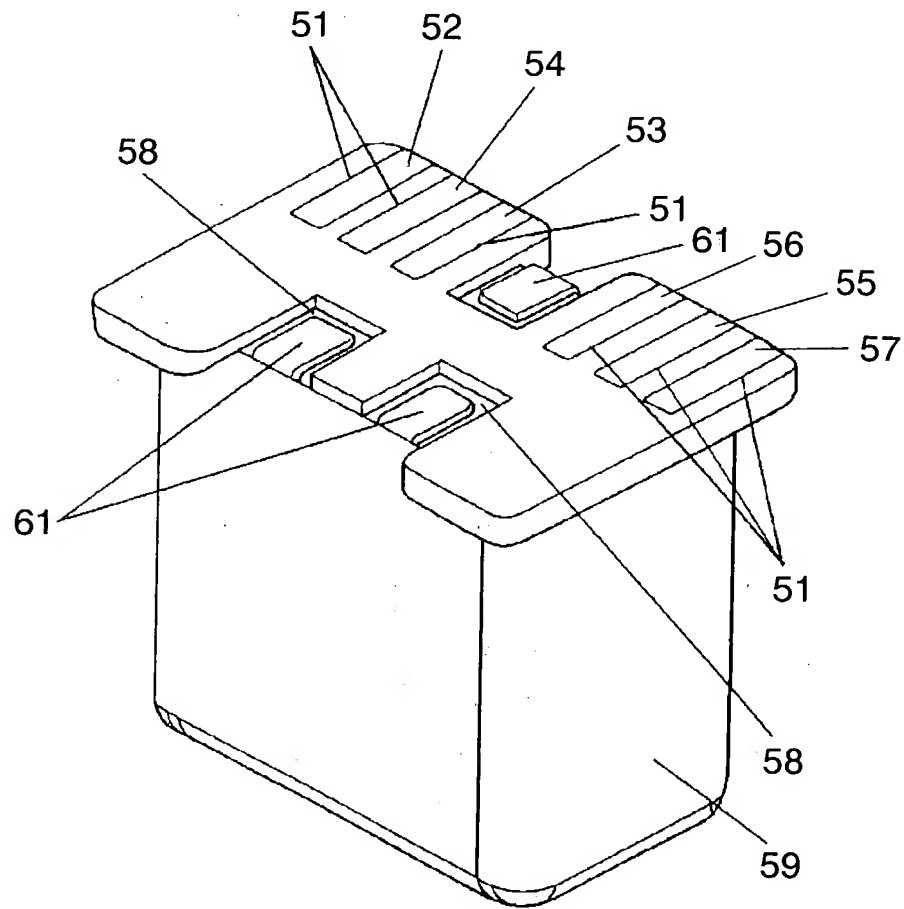
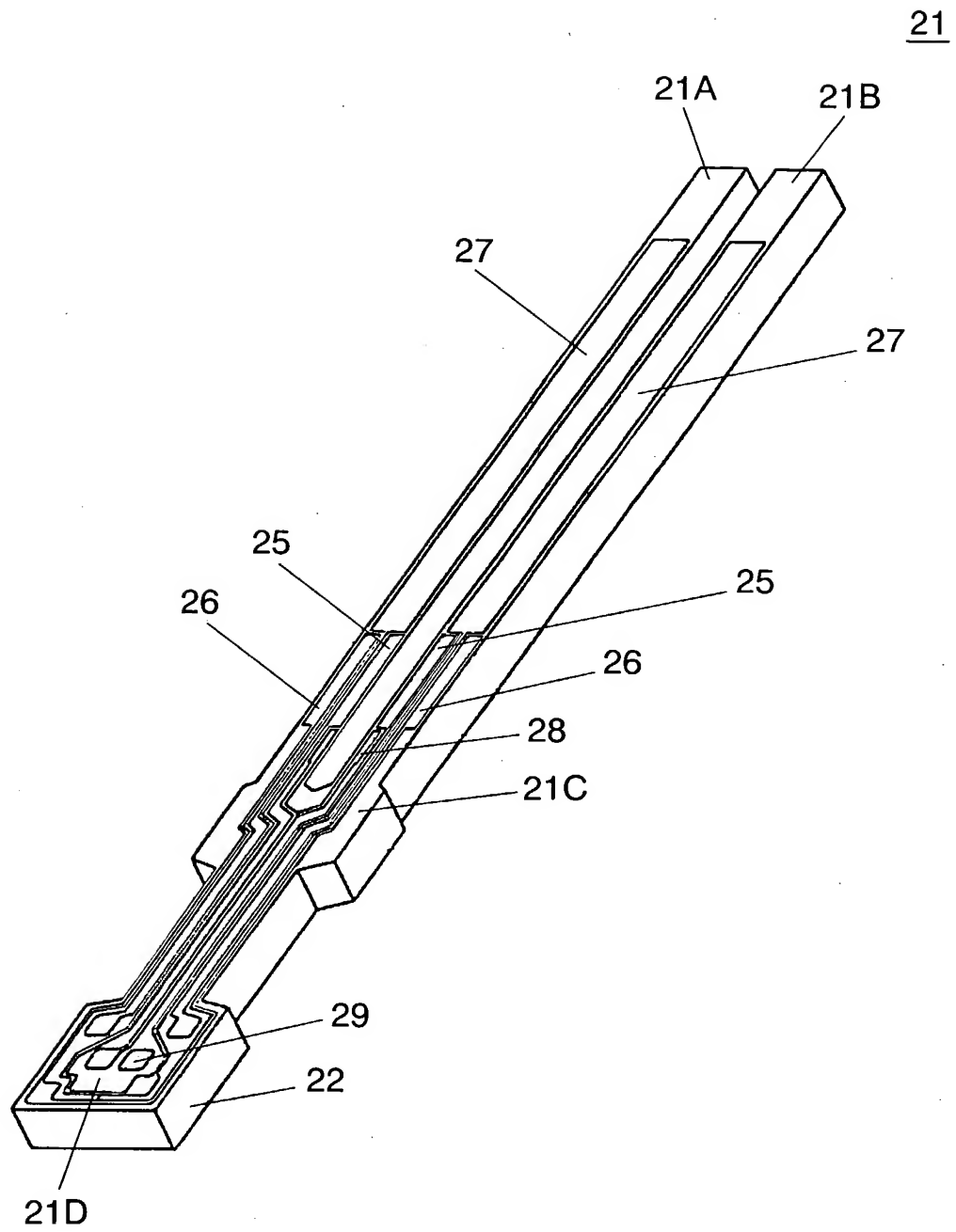


FIG. 4



5/22

FIG. 5

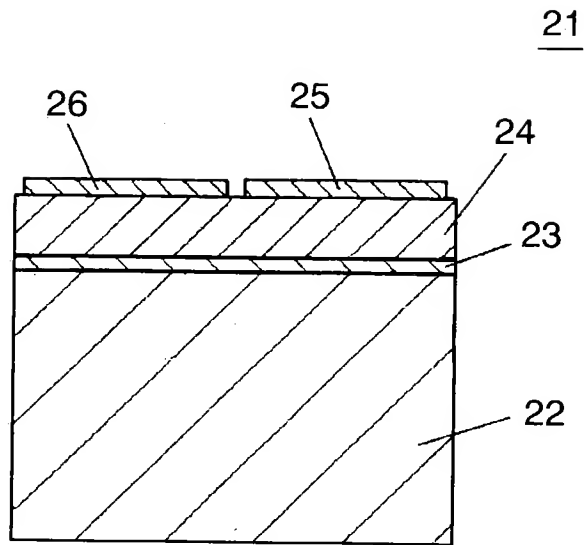


FIG. 6

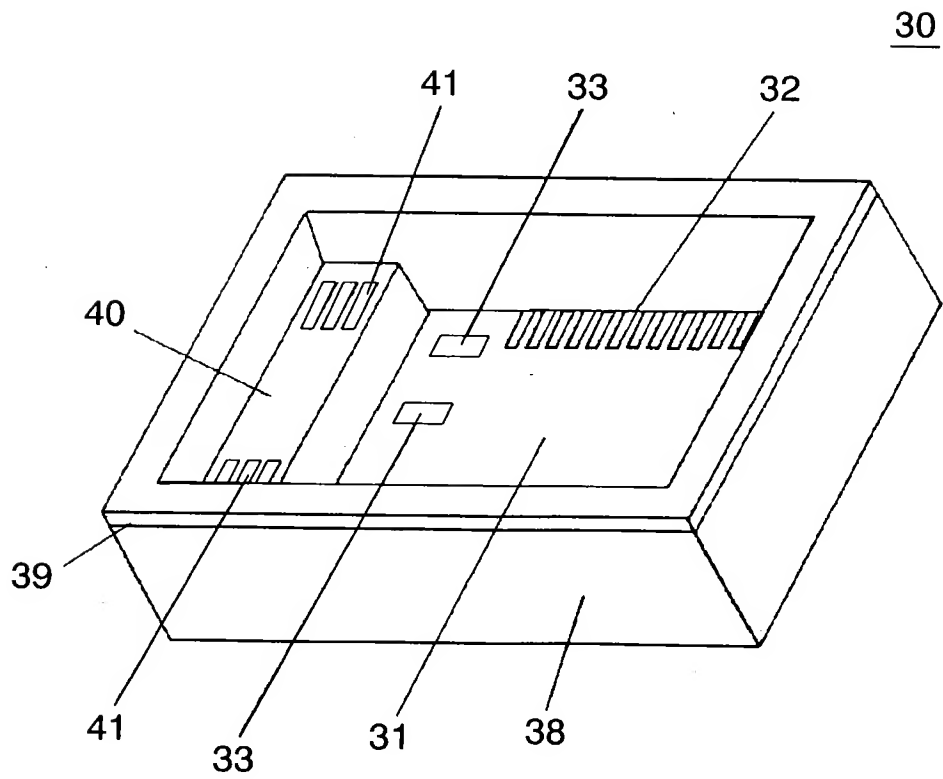
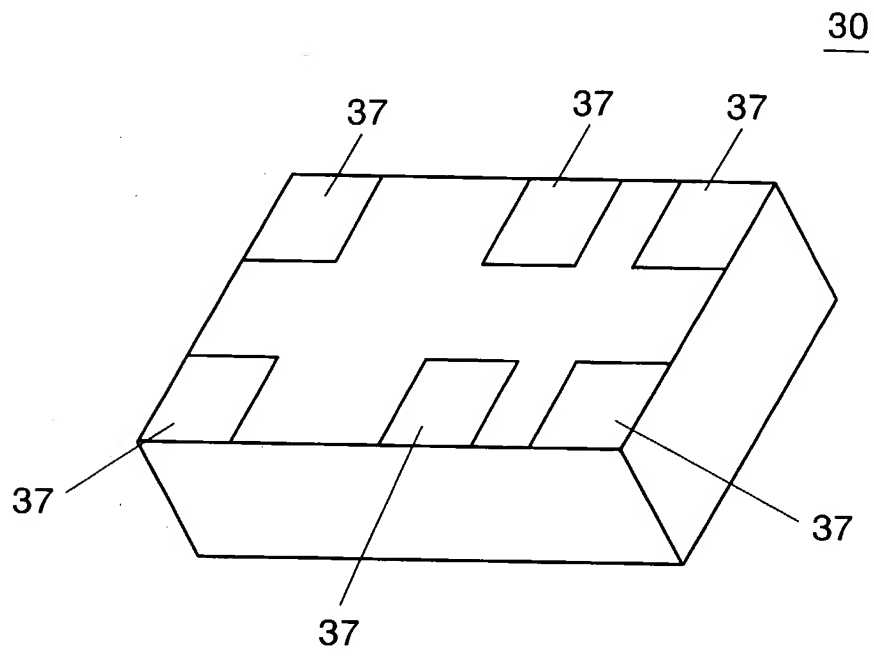


FIG. 7



7/22

FIG. 8

43

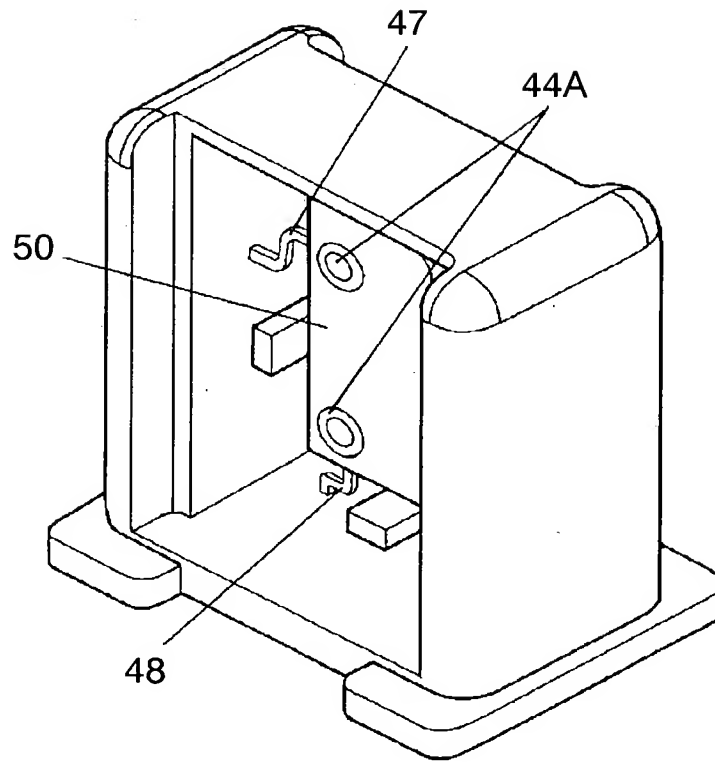


FIG. 9

This diagram shows the upper portion of the device in an exploded perspective view. It includes a top plate (50) with a central rectangular opening. The top plate features a series of parallel ridges (51) on its upper surface. A central rectangular block (52) is positioned above the opening, with a smaller rectangular piece (53) on its top surface. A series of parallel ridges (54) are located on the side of the central block. A rectangular piece (55) is positioned below the central block, with a smaller rectangular piece (56) on its top surface. A series of parallel ridges (57) are located on the side of the rectangular piece. The top plate is secured to the main body by two screws (44A) and a washer (49). The top plate is also secured to the main body by two screws (45) and a washer (44A).

FIG. 10A

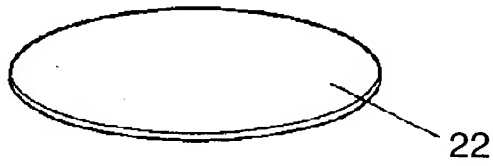


FIG. 10B

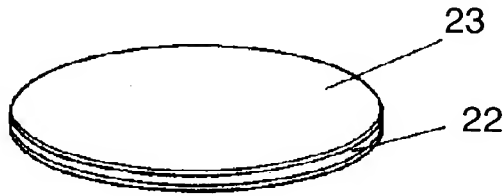


FIG. 10C

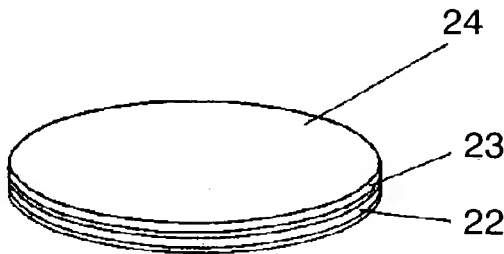


FIG. 10D

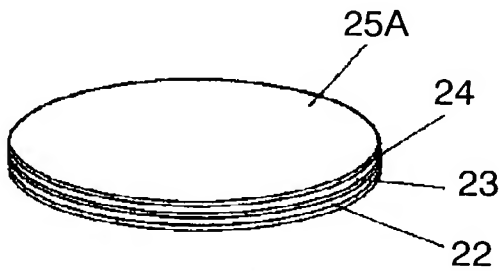


FIG. 10E



FIG. 10F

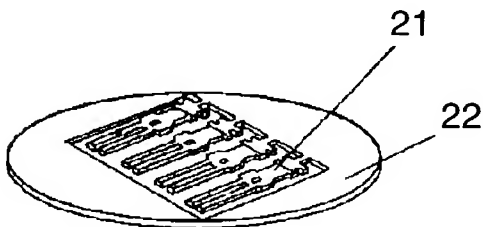


FIG. 11A

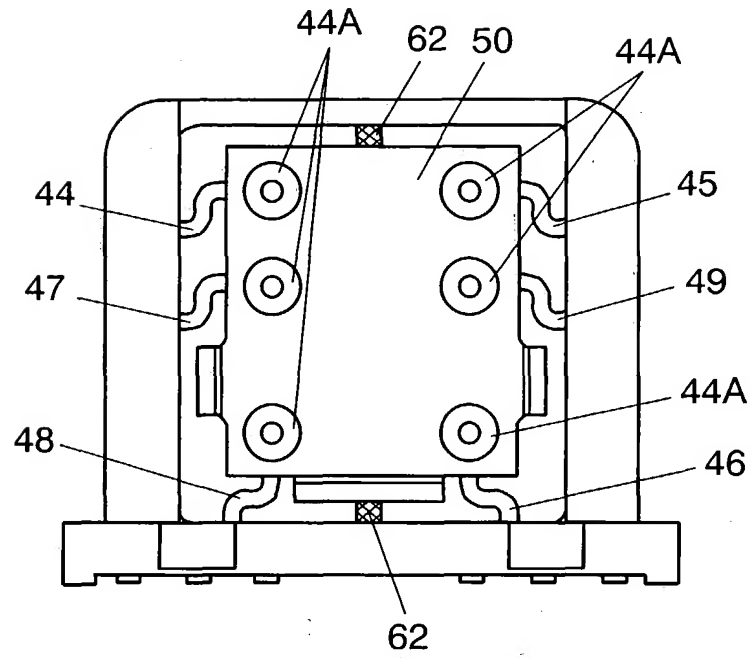


FIG. 11B

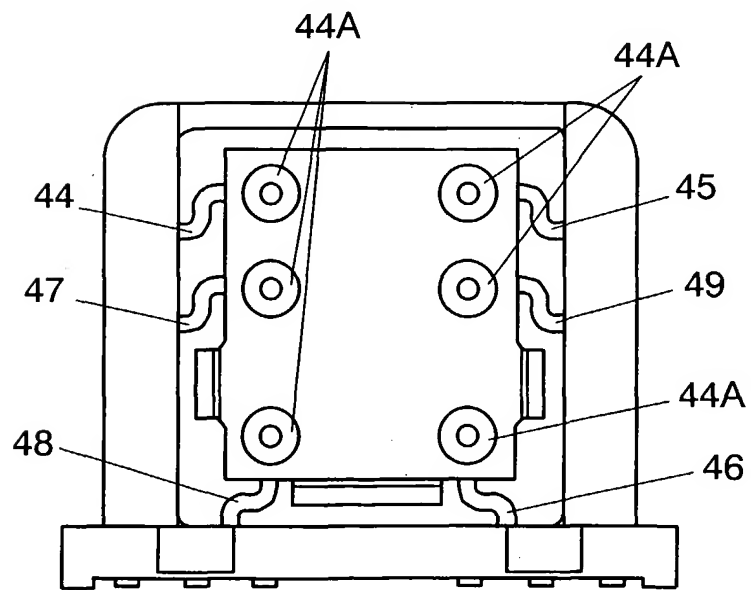


FIG. 12

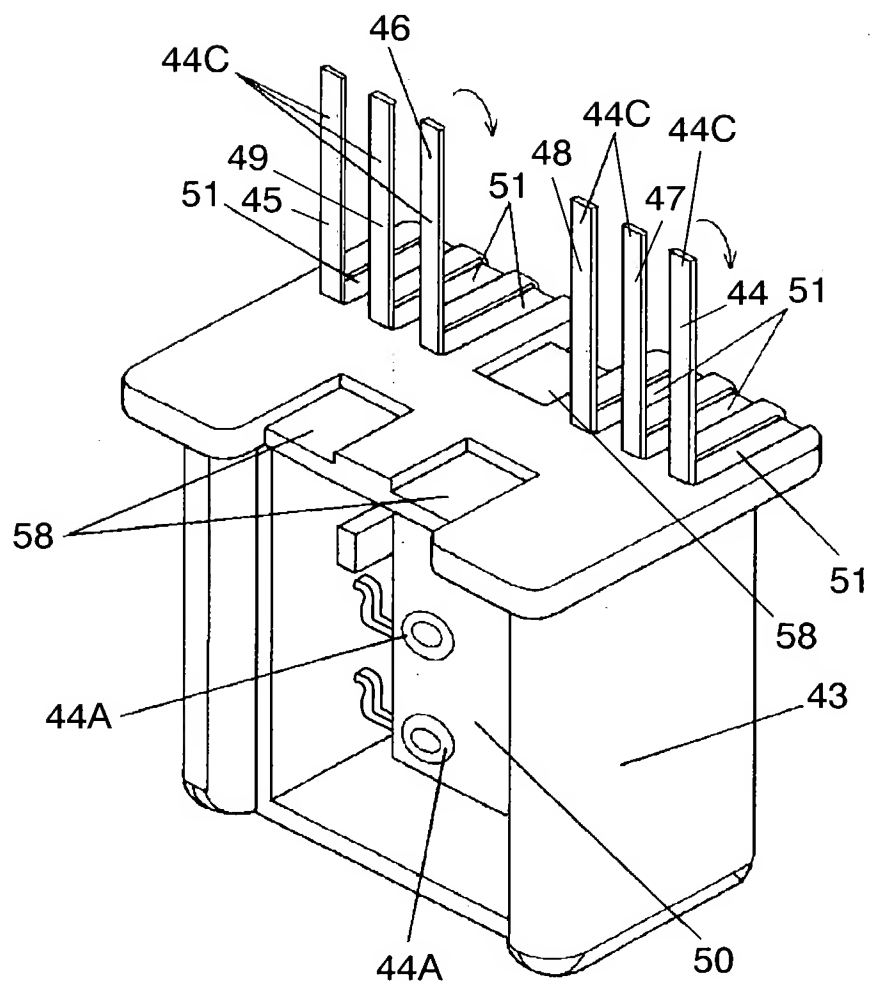


FIG. 13

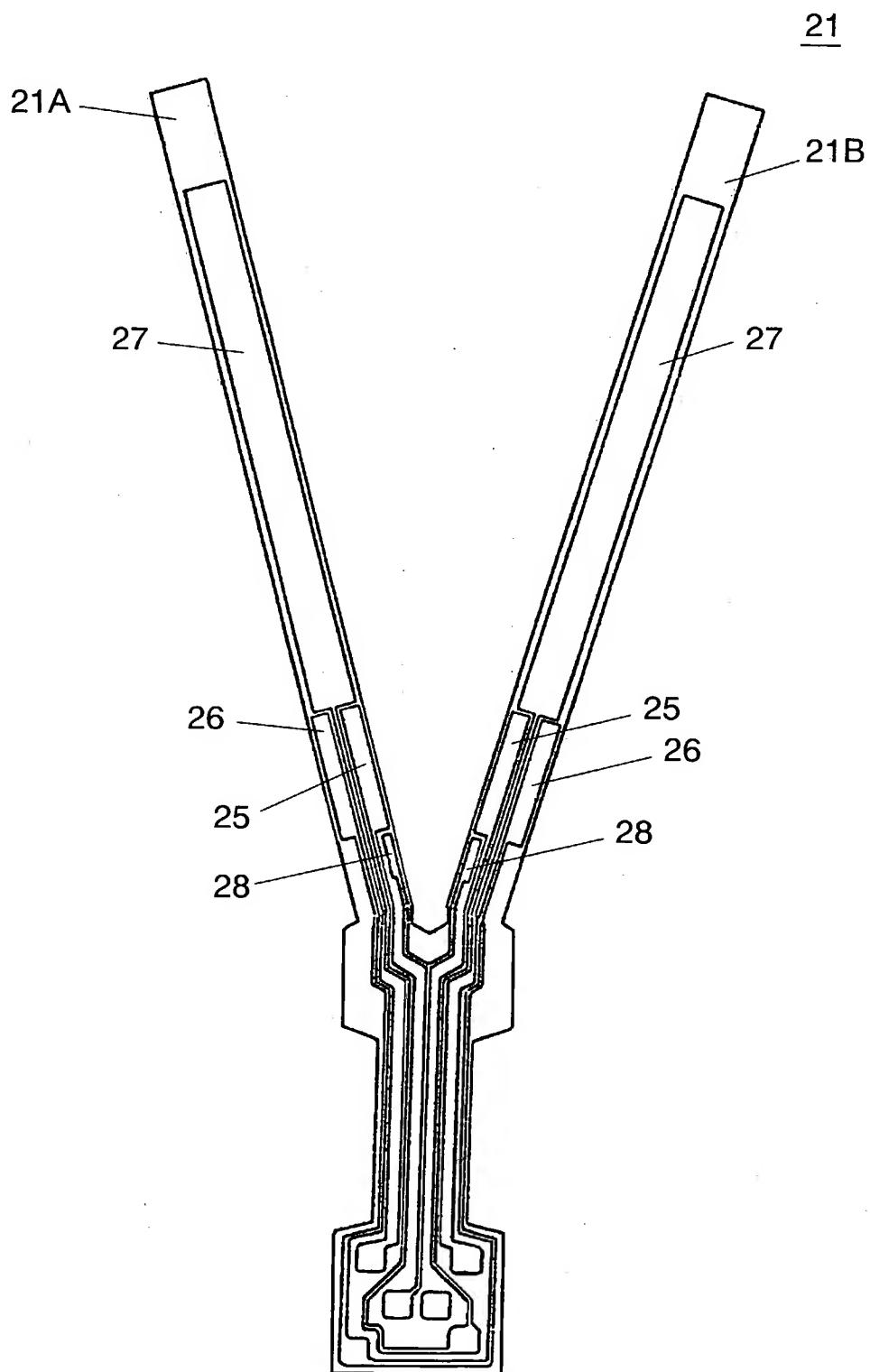


FIG. 14

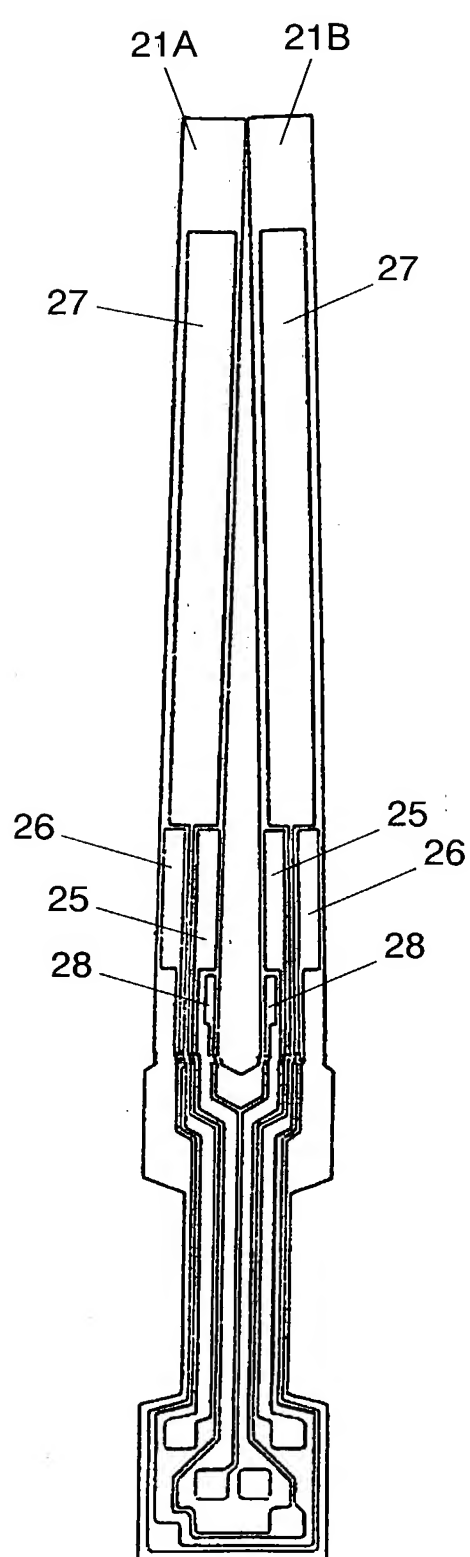
21

FIG. 15

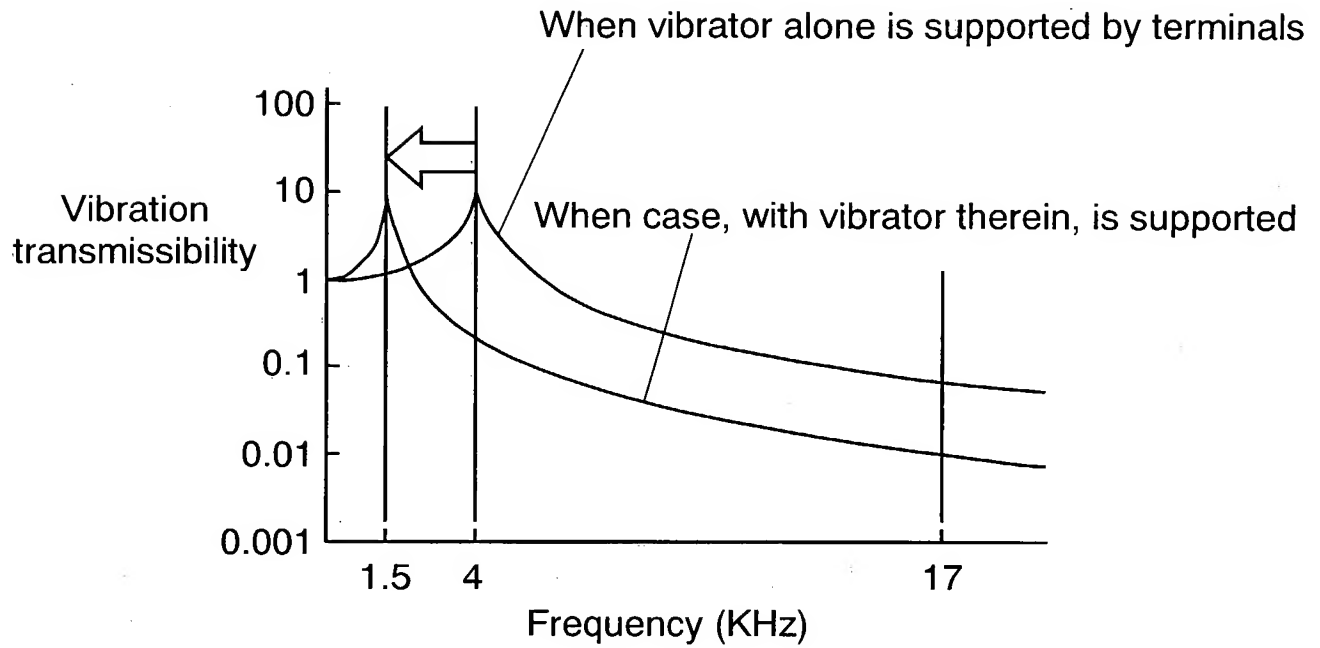


FIG. 16

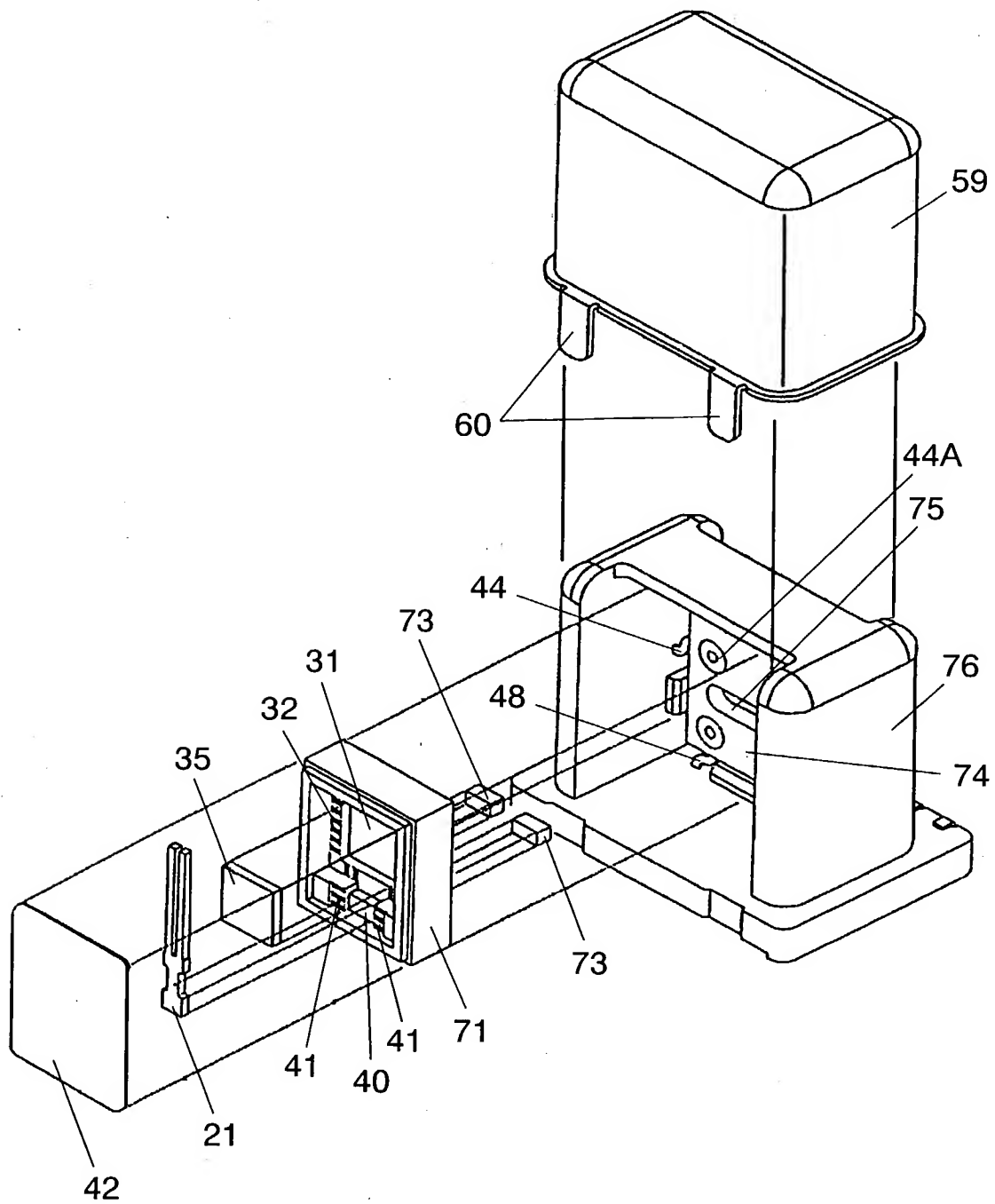


FIG. 17

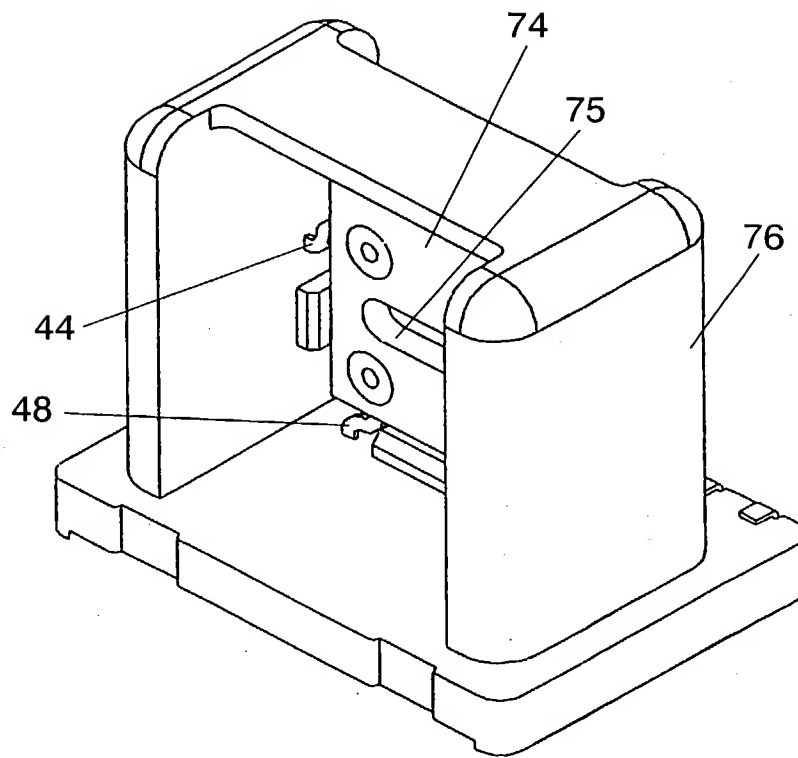


FIG. 18

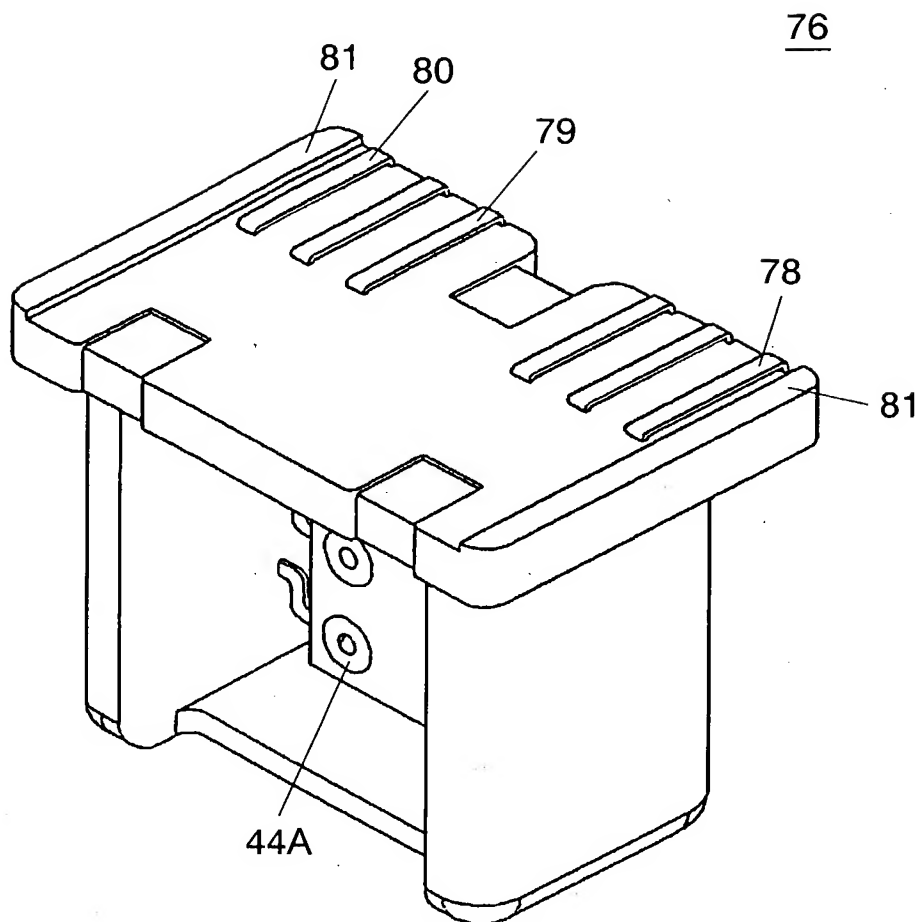


FIG. 19

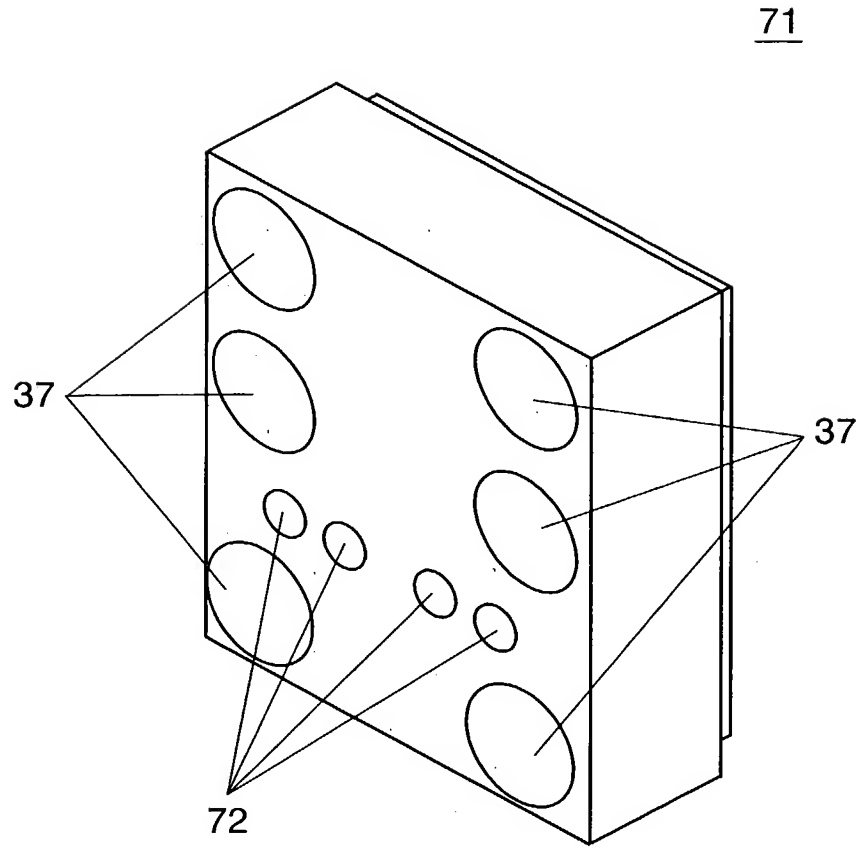


FIG. 20

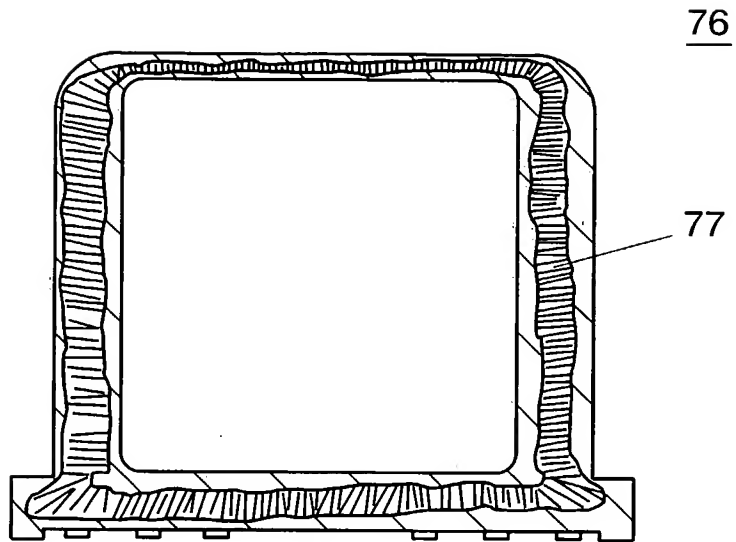


FIG. 21

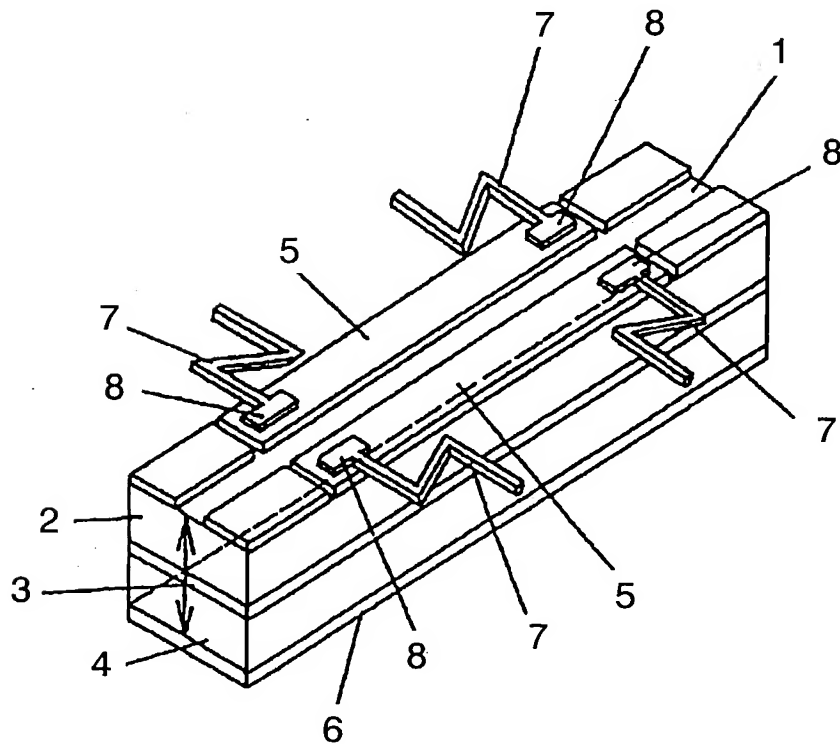
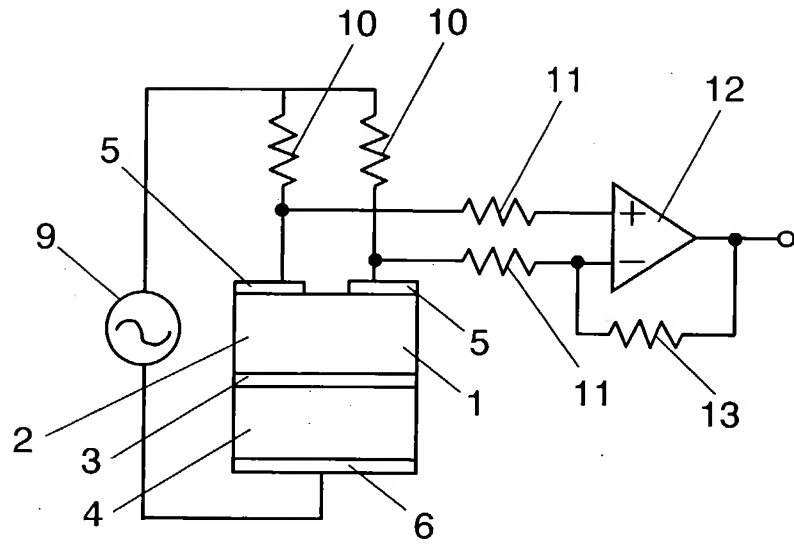


FIG. 22



Reference numerals in the drawings:

1	Vibrator
2	First piezoelectric substrate
3	Electrode layer
4	Second piezoelectric substrate
5	Split electrode
6	Common electrode
7	Terminal
8	Widened portion
9	Oscillating circuit
10, 11, 13	Resistor
12	Differential amplifier
21	Vibrator
21A	First arm portion
21B	Second arm portion
21C	Joint portion
22	Substrate
23	Common GND electrode
24	Piezoelectric layer
25	First driving electrode
26	Second driving electrode
27	Detecting electrode
28	Monitor electrode
29	GND electrode
30	Case
31	Multilayer circuit board
32	First wiring electrode
33	Second wiring electrode
34	Wire
35	IC
36	Capacitor
37	Case electrode
38	Side wall
39	Metallic frame
40	Stepped portion
41	Third wiring electrode

42	Lid
43	Containing portion
44	Power supply terminal
45	Output terminal
46	GND terminal
47	First adjustment terminal
48	Second adjustment terminal
49	Adjustment GND-terminal
50	Mount portion
51	Recess for electrode
52	Power supply electrode
53	GND electrode
54	Output electrode
55	First adjustment electrode
56	Second adjustment electrode
57	Adjustment GND-electrode
58	Recess
59	Cover
60	Engagement claw
61	GND potential connection portion
62	Connection portion
71	Case
72	Capacitor electrode
73	Capacitor
74	Mount portion
75	Hole
76	Containing portion
77	Laminar structured portion
78	Power supply electrode
79	GND electrode
80	Output electrode
81	Protruded portion